

TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P37 12PCT 62	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/FR2004/002954	International filing date (day/month/year) 19.11.2004	Priority date (day/month/year) 20.11.2003	
International Patent Classification (IPC) or national classification and IPC H02J7/00			
Applicant PELLENC (SOCIETE ANONYME)			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of 8 sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>			

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/FR2004/002954

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:

international search (Rule 12.3 and 23.1(b))
 publication of the international application (Rule 12.4)
 international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the **elements** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

the international application as originally filed/furnished
 the description:

pages 1-17 as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

the claims:

nos. _____ as originally filed/furnished

nos.* _____ as amended (together with any statement) under Article 19

nos.* 1-41 received by this Authority on 20.09.2005 with letter of 20.09.2005

nos.* _____ received by this Authority on _____

the drawings:

sheets 1/12-12/12 as originally filed/furnished

sheets* _____ received by this Authority on _____

sheets* _____ received by this Authority on _____

a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. The amendments have resulted in the cancellation of:

the description, pages _____
 the claims, nos. _____
 the drawings, sheets/figs _____
 the sequence listing (*specify*): _____
 any table(s) related to sequence listing (*specify*): _____

4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

the description, pages _____
 the claims, nos. _____
 the drawings, sheets/figs _____
 the sequence listing (*specify*): _____
 any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/FR2004/002954Box No. V **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	1-41	YES
	Claims		NO
Inventive step (IS)	Claims	1-41	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-41	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

Reference is made to the following document:

D1: EP 291131 A (EMERSON ELECTRIC CO.) 12 April 1989
(1989-04-12).

INDEPENDENT CLAIM 1

D1, which is considered to be the closest prior art, describes:

a self-contained portable electric power tool unit such as, for example, a secateur, a saw, a fruit-picking tool, a lawnmower, a scrub slasher, a hedge trimmer, an impact wrench, an electric hammer, including at least three separate functional sub-assemblies, namely a first sub-assembly (4) generating the mechanical action of the tool by means of an electric actuator connected, at least during use of the tool, via a flexible electric cord (5), to a second portable sub-assembly (2) constituting the electrical power source for the unit and essentially including a rechargeable electrochemical battery; a third charging sub-assembly (10) is electrically connected, during charging, via a disconnectable flexible cord (13) to the second sub-assembly (2) and is suitable for performing electrical recharging operations of the

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electrochemical battery of the second sub-assembly.

The subject matter of claim 1 differs from the unit of D1 in that:

- the electrical power of the actuator of the first sub-assembly can be cut off automatically when the battery reaches a low voltage threshold detrimental to the operation thereof;
- the second sub-assembly is provided, on the one hand, with a lithium-ion or lithium-polymer battery made up cells connected in series, such that each cell consists of one or more elements associated in parallel and, on the other hand, of one or more electric or electronic battery management modules for performing the task of protecting the battery against overcurrent; said module or modules being located close to said battery;
- the third sub-assembly consists at least of one electrical power source of which the voltage and the current are suitable for recharging the lithium-ion or lithium-polymer battery.

The subject matter of claim 1 is therefore novel (PCT Article 33(1) and (2)).

The problem addressed by the invention of claim 1 can be expressed as that of adapting the second and third sub-assemblies of D1 for operation with lithium-ion or lithium-polymer batteries.

To solve this problem, a person skilled in the art would

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Box No. V **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

not hesitate to modify the third sub-assembly so that the power source supplies a voltage and a current suitable for recharging a lithium-ion battery.

However, a person skilled in the art would not simultaneously think of providing the second sub-assembly with a device, located close to the battery, for protecting against overcurrent and a device for disconnecting the battery from the charging current when the battery reaches a low voltage threshold detrimental to the operation thereof.

The subject matter of claim 1 can therefore be considered inventive (PCT Article 33(1) and (3)).

Since they are dependent on claim 1, claims 2 to 41 can also be considered inventive.